

INTERNATIONAL SEARCH REPORT

International Application No
PCT/CH2004/000582

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B63B39/00 B63B1/22 B63B3/04 B63B1/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 351 262 A (MATTHEWS LESLIE N) 28 September 1982 (1982-09-28)	1-8
Y	abstract; claim 1; figures -----	8
X	US 6 182 596 B1 (JOHNSON ROBERT K) 6 February 2001 (2001-02-06)	1-7
Y	abstract; figures claim 1 column 1, lines 5-19 column 6, line 51 - column 9, line 35 -----	8
A	US 6 176 190 B1 (OZGA JOHN) 23 January 2001 (2001-01-23) abstract; figures -----	1-7
A	FR 2 746 763 A (MOULIN OLIVIER) 3 October 1997 (1997-10-03) abstract; figures -----	1-7
	-/--	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

23 December 2004

Date of mailing of the international search report

04/01/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Nicol, Y

INTERNATIONAL SEARCH REPORT

International Application No
PCT/CH2004/000582

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 465 678 A (EKMAN CHRISTER V) 14 November 1995 (1995-11-14) cited in the application the whole document -----	1-7
A	US 3 270 701 A (JOSEPH KUBAS) 6 September 1966 (1966-09-06) cited in the application column 2, lines 26-46; figures -----	1-7

INTERNATIONAL SEARCH REPORT

International Application No
PCT/CH2004/000582

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 4351262	A	28-09-1982	FR	2476585 A1	28-08-1981
			US	4494477 A	22-01-1985
US 6182596	B1	06-02-2001	AU	1938201 A	17-09-2001
			WO	0166409 A1	13-09-2001
US 6176190	B1	23-01-2001	NONE		
FR 2746763	A	03-10-1997	FR	2746763 A1	03-10-1997
			AU	2297397 A	22-10-1997
			WO	9736780 A1	09-10-1997
US 5465678	A	14-11-1995	FI	915548 A	27-05-1993
			WO	9311039 A1	10-06-1993
US 3270701	A	06-09-1966	NONE		